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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/896,382	06/29/2001	John A. Fee	RIC-00-034	9548

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EXAMINER	
SINGH, DALZID E	
ART UNIT	**PAPER NUMBER**
2633	7

DATE MAILED: 10/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/896,382	FEE, JOHN A.	
	Examiner	Art Unit	
	Dalzid Singh	2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 July 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simeonidou et al (US Patent No. 6,249,620) in view of Liu (US Patent No. 5,914,798).

Regarding claims 1, 10 and 27, Simeonidou et al disclose management of a submarine cable network comprising:

monitoring a plurality of physical connections between a first line terminating equipment and a second line terminating equipment (in col. 2, lines 43-46, Simeonidou et al disclose network management which monitors state of the optical switch (i.e., optical connections)); and

reconfiguring the submarine cable network based upon the receiving step (see col. 2, lines 49-53).

Simeonidou et al differ from these claims in that Simeonidou et al do not specifically disclose selectively receiving alarm signals from at least one of the first line terminating equipment and the second line terminating equipment. However Liu teaches the use of alarm signals (see col. 2, lines 8-11 and col. 4, lines 19-22). Since the use of alarm signal is well known, as evidence by Liu, therefore it would have been obvious to use alarm signal in order to indicate location of fault. The motivation of

providing alarm signal is to have a notification system, which indicate a fault has occurred. Once the alarm signal is transmitted regarding the faulty node, a monitoring system will response accordingly by following a preset algorithm to restore lost communication between nodes.

Regarding claims 2, 19 and 28, Simeonidou et al disclose the reconfiguring step is performed to restore service according to a plurality of classes of services (in col. 2, lines 49-57, Simeonidou et al disclose reconfiguration (restoration) to increase capacity according to the customer changing requirements (i.e., classes of services)) .

Regarding claims 3, 12, 20 and 29, Simeonidou et al disclose reconfiguring step is performed to provision services on the submarine cable network (in col. 2, lines 49-57 Simeonidou et al disclose reconfiguration (restoration) of the switch).

Regarding claims 4 and 21, Simeonidou et al disclose submarine cable network comprising of switch to forward and receive traffic as discussed above and differ from this claim in that Simeonidou et al do not specifically disclose alarm signals and interfacing with the first line terminating equipment (i.e., nodes) and the second line terminating equipment (i.e., nodes) using binary alarm interfaces. However, Liu teaches the use of alarm signal (see claim 1). Since alarm signal is being transmitted by a faulty node, therefore it would have been obvious to provide interface device for the alarm signal in order to received and processed the alarm signal and identify location of fault.

Regarding claims 5 and 22, in col. 2, lines 43-46 Simeonidou et al disclose reconfiguring are performed by a network management module and differ from this

claim in that Simeonidou et al do not specifically disclose receiving alarm signals. However, Liu teaches the use of alarm signal (see claim 1).

Regarding claims 6, 15 and 23, Simeonidou et al disclose that the network management module resides within at least one of the first line terminating equipment and the second line terminating equipment (in col. 2, lines 43-46, Simeonidou et al disclose network management is located at the end stations (i.e., first line terminating equipment)).

Regarding claims 7, 14 and 24, the combination of Simeonidou et al and Liu differs from these claims in that the combination does not specifically disclose that the network management module resides within a switching system. However, since the system is interconnected by together, therefore it would have been obvious to an artisan of ordinary skill in the art to provide the network management module anywhere within the network, such as in the switching system, in order to monitor faults within the network.

Regarding claims 8, 16 and 25, in col. 2, lines 43-53, Simeonidou et al disclose reconfiguring step and differ from this claim in that Simeonidou et al do not specifically disclose reconfiguring step comprising:

detecting a fault on one of the plurality of physical connections based upon the received alarm signals;

retrieving restoration information; and

rerouting the traffic on the one physical connection to another one of the plurality of physical connections based upon the restoration information.

However, Liu teaches the specifics of all of the above steps in response to alarm signal (see col. 2, lines 8-20). Since Simeonidou et al disclose the use of management network system to reconfigure the optical connection, therefore it would have been obvious that there exist a method to indicate a fault in the system and provide reconfiguration of the optical connection as taught by Liu in order to restore communication between different terminals.

Regarding claims 9, 17 and 26, in col. 2, lines 47-53, Simeonidou et al disclose receiving provisioning data that include capacity requirements of a customer and reconfiguring the submarine cable network based upon the capacity requirements.

Regarding claim 11, Simeonidou et al disclose network management which provides restoration service according to a plurality of classes of services (see claim 2) and differ from this claim in that Simeonidou et al do not specifically disclose a database configured to store restoration services. However, Liu teaches the use of database configured to store restoration (see col. 2, lines 12-15). Since there is plurality of optical connections connected to the switch (i.e., branching unit), therefore it would have been obvious to provide a database system in order to store and identify each connection and provide an alternate route in case a fault occurs in the network.

Regarding claim 18, Simeonidou et al disclose management of a submarine cable network comprising:

monitoring a plurality of physical connections between a first line terminating equipment and a second line terminating equipment (in col. 2, lines 43-46, Simeonidou

et al disclose network management which monitors state of the optical switch (i.e., optical connections)); and

reconfiguring the submarine cable network based upon the receiving step (see col. 2, lines 49-53).

Simeonidou et al differ from these claims in that Simeonidou et al do not specifically disclose selectively receiving alarm signals from at least one of the first line terminating equipment and the second line terminating equipment. However Liu teaches the use of alarm signals (see col. 2, lines 8-11 and col. 4, lines 19-22). Since the use of alarm signal is well known, as evidence by Liu, therefore it would have been obvious to use alarm signal in order to indicate location of fault. The motivation of providing alarm signal is to have a notification system, which indicate a fault has occurred. Once the alarm signal is transmitted regarding the faulty node, a monitoring system will response accordingly by following a preset algorithm to restore lost communication between nodes.

Furthermore, Liu teaches a computer-readable medium carrying one or more sequences of one or more instructions for providing network management of a network, the one or more sequences of one or snore instructions including instructions which, when executed by one or more processors, cause the one or more processors to perform the step discussed above (see col. 2, lines 9-36 and Figs. 6A-6C and 7-9).

Response to Arguments

3. Applicant's arguments filed 25 July 2003 have been fully considered but they are not persuasive.

Applicant argues that the reference used, Simeonidou et al, does not disclose or suggest the use of "alarm signals" and "reconfigure the submarine cable network based upon the received alarm signal and a predetermined service level agreement." However, a secondary reference, Liu, was provided which teaches the use of alarm signal. Furthermore, Simeonidou et al disclosed reconfiguration of the network based upon customer changing requirement (i.e., increase or decrease capacity of the network or service requirement).

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a

reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalzid Singh whose telephone number is (703) 306-5619. The examiner can normally be reached on Mon-Fri 8am - 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (703) 305-4729. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

DS
September 29, 2003

JASON CHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600